primary care (range: 1.0%–9.4%) than in general hospitals (range: 5.8%–43.3%), and highest in specialist nephrology settings (range: 16.0%–97.6%). Also, prevalence rates increased with the CKD stage (1–2: 14.1%–27.9%; 3: 25.5%–91.1%; 4: 36.0%–85.5%; 5: 97.6%). The cost of managing anaemia per patient per year varied across studies from £2,616 (2006–2007 Great British Pounds; GBP) to £3,740 (2006 GBP) in the UK, to €5,617 in France (cost year not reported). One study reported that the overall cost of managing anaemia was highest in patients with CKD Stage 3 compared with other stages (3: £4,162,056 vs. 4–5: £243,288; 2006–2007 GBP). Another study reported higher costs per patient per annum for individuals with lower haemoglobin (Hb) levels (Hb >12 g/dL: €2,418; Hb <10 g/dL: €13,005; cost year not reported). Among patients with CKD, those with anaemia were more likely to be hospitalised (61% vs. 50% of those without anaemia). **CONCLUSIONS:** Anaemia is a highly prevalent condition in CKD across treatment settings in Europe, and the limited evidence available suggests it is associated with a substantial economic burden.

PSY26

MODELLING THE PREDICTIVE VALUE OF PAIN INTENSITY ON COSTS AND RESOURCES UTILIZATION IN PATIENTS WITH PERIPHERAL NEUROPATHIC PAIN

Pérez C[1], Navarro A[2], Saldaña MT[3], Wilson K[4], Rejas J[5]

[1]*Pain Clinic, Hospital de la Princesa, Madrid, Spain,* [2]*Primary Care Health Centre Puerta del Ángel, Madrid, Spain,* [3]*Primary Care Health Centre Raíces, Castrillón, Asturias, Spain,* [4]*Pfizer Inc., Walton Oaks, UK,* [5]*Pfizer S.L.U., Alcobendas/Madrid, Spain*

OBJECTIVES: Peripheral neuropathic pain (PNP) implies a significant economic burden that results in major health care and indirect costs. The aim of the present analysis was modelling the association and predictive value of pain intensity on costs and resources utilization (health care and non-health resources) in patients with chronic PNP treated in routine clinical practice conditions in Spain. **METHODS:** Secondary economic analysis based on data from a multicenter, observational and prospective cost-of-illness study in patients with chronic PNP refractory to previous treatment. Data on resources utilization and pain intensity was collected at baseline and 12 weeks after starting a new treatment. Pain intensity was measured using the 0-100 mm Visual Analogue Scale (VAS) of the Short Form McGill Pain Questionnaire. Univariate and multivariate linear regression models were fitted to identify independent predictors of costs and health care and non-health care resources utilization. **RESULTS:** A total of 1703 patients were included in the current analysis. Pain intensity was an independent predictor of total costs ([Total costs(Euros)] = 35.6 x [VAS pain intensity] + 214.5; coefficient of determination [R^2]=0.19, p<0.001), direct costs ([Direct costs(Euros)] = 10.8 x [VAS pain intensity] + 257.7; R^2=0.06, p<0.001) and indirect costs ([Indirect costs(Euros)] = 24.8 x [VAS pain intensity] – 43.4; R^2=0.19, p<0.001) related to chronic PNP in the univariate analysis. Pain intensity remain significantly associated with total costs, direct costs and indirect costs after adjustment by other covariates in the multivariate analysis (p<0.001). The impact of pain intensity on health care and non-health care resources utilization accounted for such findings. **CONCLUSIONS:** Pain intensity predicts the health care and non-health care resources utilization, and costs related to chronic PNP. Management of patients with drugs associated with a higher reduction of pain intensity will have a greater impact on the economic burden of that condition.

PSY27

RESOURCE UTILIZATION AND COSTS ASSOCIATED WITH RITUXIMAB TREATMENT IN PATIENTS WITH PEMPHIGUS AND PEMPHIGOID: A COMPARISON OF 6 MONTHS BEFORE AND 6 MONTHS AFTER TREATMENT

Heelan K, Shear N, Knowles S, Hassan S, Mittmann N

Sunnybrook Health Sciences Centre, Toronto, ON, Canada

OBJECTIVES: Pemphigus and pemphigoid are a rare group of potentially fatal diseases, causing blistering on mucosal and epidermal surfaces. Long-term treatment with systemic corticosteroids and immunosuppressive agents such as intravenous immunoglobulin (IVIg) are usually required. Rituximab (RTX) is increasingly being used for autoimmune bullous dermatoses (AIBD) and has shown to be effective, however, in Canada, RTX is not approved for AIBD. Given the potential cost associated with the use of RTX, there is a need to quantify the issues around accessing it for AIBD patients. **METHODS:** Resources (e.g., treatment, lab costs, procedures, access to health care providers) associated with 89 AIBD patients were collected and quantified 6 months prior and 6 months post RTX initiation. Costs of adverse events secondary to standard treatment (e.g., steroid adverse effects such as diabetes, cataracts, osteoporosis etc) and costs of medications used to prevent steroid adverse effects (e.g., proton pump inhibitors, bisphosphonates) were not calculated. Unit costs (2013 $CAN) were applied to the resources. Overall cohort costs pre and post RTX, as well as cost per patient, were calculated. Cost drivers were identified. **RESULTS:** The overall cohort cost for 6 months pre-RTX was $3.7million (M), and 6 months post was $2.6M (30.3% decrease). IVIg was shown to be the main cost driver. 6 months pre-RTX, 157 months of IVIG was used ($3.6M) compared to 71 months ($1.6M) 6 months post. The cost associated with access to health care resources significantly reduced from $46,715 vs. $22,978, and fewer visits to the dermatologist were required (377 vs. 256 visits). A decrease was also observed in the cost of specialist consultations required ($5,807 vs. $3,234) and other treatment/medication use ($64,548 vs. $48,045). The cost per patient decreased ($41,497 vs. $28,923). **CONCLUSIONS:** RTX is effective in reducing the number of resources and costs associated with treatment of AIBD.

PSY28

HEALTH AND SOCIAL CARE RESOURCE USE BY INDIVIDUALS WITH FRAGILE X SYNDROME: RESULTS OF TWO DELPHI PANELS

Barry SJ[1], London P[2], Bostock T[1], Adlard N[3], Lakhdari K[4], Aubertin G[5], Burge P[6], Corbin JF[7], Gagnon S[7], Hassiotis A[8]

[1]*Optum, Burlington, ON, Canada,* [2]*Optum, Chicago, IL, USA,* [3]*Novartis Pharmaceuticals UK, Surrey, UK,* [4]*Novartis Pharmaceuticals Canada, Montreal, QC, Canada,* [5]*University of British Columbia, Victoria, BC, Canada,* [6]*Queen's University, Kingston, ON, Canada,* [7]*University de Sherbrooke, Sherbrooke, QC, Canada,* [8]*University College London, London, UK*

OBJECTIVES: To estimate health and social care resource use in treating individuals with Fragile X Syndrome (FXS) in Canada and the United Kingdom (UK). FXS is the most common inherited form of intellectual disability (ID) worldwide; however its impact on resource use is not well documented. **METHODS:** Delphi panels were formed to generate consensus-based estimates of resource use. Panelists from multiple disciplines were recruited (7 panelists in Canada, 6 in UK) and a questionnaire developed to obtain estimates from each panelist by 2 age groups, 2 severity levels and 24 service types for each of 9 items from the Aberrant Behavior Checklist (ABC) a proxy completed instrument to rate maladaptive behaviors of individuals with ID. A factor weight was estimated to differentiate costs by gender and a self-declared confidence score (1 – 5) was reported for each ABC item. Mean total service counts and coefficients of variation (CV) were calculated to assess variance between panelists and between rounds. Initial results were reviewed with panelists in a facilitated group discussion after which the questionnaire was repeated. Final data were based on the second round of estimation. **RESULTS:** Comprehensive resource data were collected for both countries. There was lower variance and higher confidence in both countries in round 2 compared to 1. Rounds 1 and 2 means (CV) for Canada were [6,723 (0.69) 8,575 (0.52)] and for UK were [6,953 (0.96) 6,023 (0.76)]. The average level of self-declared confidence increased from 2.6 to 3.3 in Canada and from 2.6 to 2.8 in the UK. **CONCLUSIONS:** The study generated comprehensive resource use data for treating individuals with FXS in Canada and the UK. Credible and validated estimates were generated through group discussion and refinement of initial estimates. The resulting data will be important in performing economic evaluations of treatments for patients with FXS.

PSY29

IMPACT OF BARIATRIC SURGERY ON OBESE PATIENTS MANAGEMENT AND RELATED COSTS: A FRENCH NATIONAL CLAIMS DATABASE ANALYSIS OVER THE PERIOD 2005 -2011

Czernichow S[1], Emery C[2], Fagnani F[2], Gourmelen J[1], Szwarcensztein K[3], Lafuma A[2]

[1]*INSERM, Villejuif, France,* [2]*Cemka Eval, Bourg La Reine, France,* [3]*ETHICON SAS, Issy les Moulineaux, France*

OBJECTIVES: To gain an understanding of the impact of bariatric surgery on the current medical management of obese patients. **METHODS:** The EGB database is a 1/97 representative sample (around 600,000 individuals) of the national claims database covering the whole French population including outpatients and inpatient care. Adult patients treated for the first time over the period 01/01/2007 to 31/12/2009 by bariatric surgery were identified through related procedures and obesity ICD-10 codes. A cohort of patients was constituted with a 2-year follow-up before and after the index procedure date (T). Reimbursed medical consumption over this 4-year period was recorded and presence of co-morbidities was identified through ICD-10 codes, reimbursement of specific drugs or procedures. **RESULTS:** A total of 350 patients meeting the selection criteria were identified in the database with a mean age of 38.9 (+/- 11.3) years, 83.4% female and 69.7% had a BMI in the range 40-50. The distribution of patients according to bariatric procedure was gastric banding (62.6%), gastric by-pass (19.7%), sleeve gastrectomy (16.6%) and bilio-pancreatic diversion (1.1%). The annual per capita reimbursed health expenses evolved from 2.633€ (+/-3.124€) in Year (T-2), to 3.557€ (+/-3.380€) in Year (T-1), to 4.240€ (+/-3.840€) in Year (T+1) (excluding procedure cost) to 3.755€ (+/-5.037€) in Year (T+2). In 39% of patients those costs decreased between T-2 and T+2, (>5%) and the only two variables significantly explaining this decrease were the reduction of consumption for anti-Diabetes and/or anti-Hypertension drugs. Most items of medical consumption increased over the period pre and post procedure but started to decrease in Year T+2. **CONCLUSIONS:** The visits for preparing bariatric surgery were probably an opportunity for those patients to benefit from a general check-up which has generated extra short term medical consumption. Additional research with longer follow up could better capture the benefits of bariatric surgery on medical consumption.

PSY30

COST-CONSEQUENCE ANALYSIS OF A TREATMENT STRATEGY INCLUDING PONATINIB COMPARED TO A TREATMENT STRATEGY INCLUDING ONLY THE 2ND GENERATION TYROSINE KINASE INHIBITORS (2G TKIS), DASATINIB OR NILOTINIB, IN RESISTANT PATIENTS WITH PHILADELPHIA CHROMOSOME-POSITIVE (PH+) LEUKEMIA, IN ITALY

Chiroli S[1], Furneri G[2], Pane F[3]

[1]*1ARIAD Pharmaceuticals (Europe) Sárl, Lausanne, Switzerland,* [2]*Italian National Research Center on Aging, Ancona, Italy,* [3]*Università Federico II, Napoli, Italy*

OBJECTIVES: To assess treatment cost and duration (months) of major cytogenetic response (MCyR) using ponatinib in patients intolerant or resistant to 2G TKI, compared to treating with only 2G TKIs, in patients with Ph+ leukemia, in Italy. **METHODS:** A 3-year Markov model with 1-year cycles simulated patients with Ph+ leukemia to estimate outcomes in those eligible for ponatinib therapy, defined as 1) 2G TKI-resistant, 2) 2G TKI-intolerant if imatinib is not clinically appropriate, or 3) with T315I mutation. Eligible patients received treatment sequences including 2G TKIs and ponatinib in the ponatinib arm and 2G TKI only in the comparator arm. Patients without MCyR by 12 months were switched to the next therapy line until TKI options were exhausted, then to best supportive care. MCyR rates for 2G TKI or ponatinib were estimated from clinical trial data and expert opinion. Patients were assumed to accrue MCyR months until estimated treatment failure. Monthly treatment costs reflect approved EU dosing and list prices; cost of ponatinib was assumed equivalent to the US. **RESULTS:** We estimated 184, 280, and 360 ponatinib-eligible patients in years 1-3, respectively. Treating ponatinib-eligible Ph+ leukemia patients with 2G TKIs yielded a 3-year cost of €58.51 million and a total of 2,536 months in MCyR, at an average cost of €23,068/MCyR month. Using ponatinib in eligible patients cost €79.54 million and provided 5,649 months in MCyR, at an average cost of €14,079/MCyR month. **CONCLUSIONS:** The treatment strategy includ-